

WE CLAIM:

1. A method for producing hydrocyanic acid synthesis catalyst characterized by sequential exposure of an iron surface to oxidative and reductive atmospheres.

2. A method for producing hydrocyanic acid synthesis catalyst according to claim 1 wherein the inner surface of an iron pipe is sequentially exposed to oxidative and reductive atmospheres.

3. A method for producing hydrocyanic acid synthesis catalyst according to claim 1 or claim 2 wherein the cycle of exposure to oxidative and reductive atmospheres is carried out more than once.

4. The method of claim 1 wherein the oxidative atmosphere is a gas containing from about 5% to 30% by volume of oxygen.

5. The method of claim 1 wherein the reductive atmosphere is a gas containing between 1% and 99% by volume of hydrogen.

6. The method of claim 1 wherein the oxidative atmosphere is a gas containing from about 5% to 30% by volume of oxygen and the reductive atmosphere is a gas containing between 1% and 99% by volume of hydrogen.

7. The method of claim 1 wherein the exposure of the iron surface to the oxidative atmosphere is conducted under the conditions that the temperature is in the range of about 300°C to 650°C, the pressure is in the range of from about 6 kPa to 150 kPa, a space velocity of from about 10 to 150h⁻¹ and the time is from about 5 to 300 minutes.

8. The method of claim 1 wherein the exposure of the iron surface to the reductive atmosphere is conducted under the conditions that the temperature is

Sub A.

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Sub B.

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dependent variables

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method of claim

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